



UNITED STATES PATENT AND TRADEMARK OFFICE

mn
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,726	09/18/2003	Foster D. Hinshaw	3336.1008-002	4680
21005 7590 05/10/2007 HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			EXAMINER PHAM, KHANH B	
			ART UNIT 2166	PAPER NUMBER
			MAIL DATE 05/10/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/665,726	Applicant(s) HINSHAW ET AL.	
	Examiner Khanh B. Pham	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-4 and 6-21** are rejected under 35 U.S.C. 102(e) as being anticipated by Sarkissian et al. (US 6,789,116 B1), hereinafter "Sarkissian"

As per claims 1, 21, Sarkissian teaches a programmable pipeline processor for processing streaming input data (Col. 3 lines 30-40) comprising:

- "an interface (Fig. 11, 1101) for receiving field-delineated data from a field parser (Fig. 3, 301), the field parser connected to par non-field delineated data from a streaming data source into the field-delineated data, under instruction from an external processing unit" at Col. 8 line 55 to Col. 9 line 20 and Figs. 3, 11;
- "a field buffer that stores the field delineated data" at Col. 10 lines 45-54 and Fig. 11, 1103;
- "at least one logic unit that performs at least one field operation on the field delineated data" at Col. 10 lines 55-65 and Fig. 3, 303.

As per claim 2, Sarkissian teaches the processor of claim 1 further comprising “a programmable memory that receives, as an address, field oriented data from the field buffer” at Col. 33 lines 40-50, “wherein the programmable memory serves as a substitution table for field data” at Col. 35 lines 45-55.

As per claim 3, Sarkissian teaches the processor of claim 2, wherein “the substitution table contains alternate character equivalents for a set of character data” at Col. 35 lines 45-55.

As per claim 4, Sarkissian teaches the processor of claim 2, wherein “the programmable memory includes multiple substitution tables that provide multiple character equivalents for a corresponding set of characters” at Col. 35 lines 45-55.

As per claim 6, Sarkissian teaches the processor of claim 1, further comprising “at least two temporary registers for storing field delineated data from the field buffer, prior to use of the field delineated data by the logic unit” at Col. 33 lines 25-30.

As per claim 7, Sarkissian teaches the processor of claim 6, wherein “a first data field is stored in a first temporary register from the field buffer, a second data field is stored into a second temporary register and the logic unit is connected to compare a third data field from the field buffer with the first data field and a fourth data field from the field buffer with the second data field” at Col. 17 lines 1-30.

As per claim 8, Sarkissian teaches the processor of claim 7 wherein “the logic unit compares a third data field from the field buffer with the first data field and a fourth data field from the field buffer with the second field in two instructions” at Col. 22 lines 40-50.

As per claim 9, Sarkissian teaches the processor as in claim 6, wherein “a first data field is stored in a first temporary register from the field buffer; a second data field is stored into a second temporary register; and the logic unit is connected to compare a third data field from the field buffer with the first data field and with the second data field” at Col. 17 lines 1-30.

As per claim 10, Sarkissian teaches the processor as in claim 9, wherein “the logic unit compares a third data field from the field buffer with the first data field and with the second field in a single instruction” at Col. 39 lines 45-65.

As per claim 11, Sarkissian teaches the processor as in claim 1 further comprising “a data string register that stores data received from the external central processing unit to be used as an operand by the logic unit” at Col. 24 lines 12-20.

As per claim 12, Sarkissian teaches the processor of claim 11, wherein “at least one pointer specifies a location in the data string register to be used as the operand” at Col. 32 lines 20-40.

As per claim 13, Sarkissian teaches the processor as in claim 12 wherein “the logic unit is connected to compare a data field from the field buffer with a data field from the data string register as specified by a first pointer” at Col. 33 lines 25-50.

As per claim 14, Sarkissian teaches the processor as in claim 13 wherein “the data field from the field buffer is simultaneously compared with a second data field from the data string register specified by a second pointer” at Col. 33 lines 25-50.

As per claim 15, Sarkissian teaches the processor as in claim 11 wherein “at least one logic unit performs a bit vector join operation using an operand from the data string register to determine the presence or absence of a particular field value in the field delineated data” at Col. 4 lines 1-15.

As per claim 16, Sarkissian teaches the processor as in claim 1 further comprising:

- “a data string register that stores data received from an external central processing unit to be used as an operand by the logic unit” at Col. 32 lines 20-40;
- “a temporary register for storing field delineated data from the field buffer, prior to use of the field delineated data a by the logic unit” at Col. 33 lines 25-50;
- “wherein an operand can originate from either the data string register of the temporary register” at Col. 33 lines 25-50.

As per claim 17, Sarkissian teaches the processor as in claim 1, wherein “a field buffer location is reused when the streaming data source is paused” at Col. 33 line 59 to Col. 34 line 15.

As per claim 18, Sarkissian teaches the processor as in claim 1 further comprising “a data string register that stores two or more operands received from the external central processing unit” at Col. 33 line 59 to Col. 34 line 15.

As per claim 19, Sarkissian teaches the processor as in claim 1 wherein “the logic unit handles numeric data sign operations” at Figs. 20-21.

As per claim 20, Sarkissian teaches the processor as in claim 1 wherein “the logic unit performs two or more filter operations in a single instruction” at Col. 40 lines 30-45.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkissian as applied to claims 1-4 and 6-21 above, and in view of Bauer (US 2002/0052749 A1), hereinafter “**Bauer**”.

As per claim 5, Sarkissian teaches the processor of claim 2 discussed above. Sarkissian does not explicitly teaches: “the substitution table is used to map uppercase letters to their lowercase equivalents for substitution”. However, Bauer teaches a method for case conversion using a table at page 3. [0036]. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Bauer with Sarkissian’s teaching in order to allow comparison of strings in both uppercase and lowercase to identify matching strings.

Response to Arguments

5. Applicant's arguments filed 2/28/2007 have been fully considered but they are not persuasive. The examiner respectfully traverses applicant's arguments.

Regarding claim 1, applicant argued that Sarkissian does not teach "perform at least one field operation on the field delineated data." On the contrary, Sarkissian teaches at Col. 10 lines 55-65 the step of comparing the UFKB record with the database of flows 324 for matching known flow using hash value field of the record. Sarkissian further teaches at Fig. 3 other operations to be performed on the field delineated data.

In light of the foregoing arguments, the 35 U.S.C 102 rejection is hereby sustained.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khanh B. Pham
Primary Examiner
Art Unit 2166

May 9, 2007

